PE\_ HSF301\_SU24\_202466 - Note  
SUMMER 2024  
Subject: HSF301

**Please read the instructions carefully before doing the questions.**

* You are **NOT allowed** to use any other materials. You are **NOT allowed** to use any device to share data with others.
* You must use IDE as **Eclipse 2023 or later, MSSQL Server 2019 or** **later database** for your development tools.

**IMPORTANT – Before you start doing your solution, MUST do the following steps:**

* To do your program, you must use **JavaFX**, apply 3-Layer architecture. *Note that* *you are not allowed to connect direct to database from* JavaFX*, every database connection must be used with Repository and Data Access Objects. The database connection string must get from* ***hibernate.cfg.xml*** *file.* ***In the case your program connects directly to database from JavaFX/Pages or hardcode connection string, you will get 0 point.***

1. ***If there are syntax errors or compilation errors in your PE program, you will not pass the PE requirements, the point will be 0.***
2. Create Java Project named **PE\_HSF301\_SU24\_202466\_StudentName** and Project JavaFX named: **CineStarFX\_StudentName.**
3. Create your MS SQL database named **Cinestar2024DB** using a code-first approach with Hibernate, and ensure that it includes the data provided in the **PE\_HSF301\_SU24\_202466\_Note file**
4. Set the default user interface for your project as **Login** Screen
5. ***Your work will be considered invalid (0 point) if your code inserts stuff that is unrelated to the test.***

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**REFERENCES *(this session just for reference, student can use the other approach to do Practical Exam and student must change to run your program)***

***1. Working with DB connection string from hibernate.cfg.xml***

1. <?xml version = *"1.0"* encoding = *"utf-8"*?>
2. <!DOCTYPE hibernate-configuration SYSTEM
3. "http://www.hibernate.org/dtd/hibernate-configuration-3.0.dtd">
4. <hibernate-configuration>
5. <session-factory>
6. <property name=*"hbm2ddl.auto"*>update</property>
7. <property name=*"dialect"*>org.hibernate.dialect.SQLServerDialect</property>
8. <property name=*"connection.url"*>jdbc:sqlserver://localhost:1433;DatabaseName=Equipments2024DB;encrypt=true;trustServerCertificate=true</property>
9. <property name=*"connection.username"*>sa</property>
10. <property name=*"connection.password"*>1234567</property>
11. <property name=*"connection.driver\_class"*>com.microsoft.sqlserver.jdbc.SQLServerDriver</property>
12. <mapping class=*"hsf301.fe.pojo.Room"* />
13. <mapping class=*"hsf301.fe.pojo.Equipement"* />
14. </session-factory>
15. </hibernate-configuration>

**2. Working with the *pom.xml***

<project xmlns="http://maven.apache.org/POM/4.0.0"

xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 https://maven.apache.org/xsd/maven-4.0.0.xsd">

<modelVersion>4.0.0</modelVersion>

<groupId>fe.edu.vn</groupId>

<artifactId>HSF301\_Chapter\_01\_Ex\_02\_ManyToOne</artifactId>

<version>0.0.1-SNAPSHOT</version>

<dependencies>

<dependency>

<groupId>org.hibernate</groupId>

<artifactId>hibernate-entitymanager</artifactId>

<version>5.6.9.Final</version>

</dependency>

<dependency>

<groupId>com.microsoft.sqlserver</groupId>

<artifactId>mssql-jdbc</artifactId>

<version>11.2.3.jre17</version>

</dependency>

</dependencies>

</project>

**3. Change Arguments to Run JavaFX**

--module-path "path\javafx-sdk-21.0.2\lib" --add-modules javafx.controls,javafx.fxml

**You must change the information to suitable with your local machine.**

**4. Example code**

s

tbData.getSelectionModel().selectedItemProperty().addListener(new ChangeListener() {

public void changed(ObservableValue arg0, Object arg1, Object arg2) {};

if (tbData.getSelectionModel().getSelectedItem() != null) {

TableViewSelectionModel selectionModel = tbData.getSelectionModel();

ObservableList selectedCells = selectionModel.getSelectedCells();

TablePosition tablePosition = (TablePosition) selectedCells.get(0);

Object studentID = tablePosition.getTableColumn().getCellData(index);

// Code

}

}

|  |  |
| --- | --- |
| **Movies** | |
| MovieID | int |
| MovieName | nvarchar(50) |
| Duration | int |
| Actor | nvarchar(50) |
| Status | nvarchar(50) |
| DirectorID | int |

|  |  |
| --- | --- |
| **Directors** | |
| ID | int |
| DirectorName | nvarchar(100) |
| Nationality | nvarchar(150) |

**5.Tables**

|  |  |
| --- | --- |
| **Accounts** | |
| Email | nvarchar(50) |
| Password | nvarchar(50) |
| RoleID | int |

**6.Data**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **MovieID** | **MovieName** | **Duration** | **Actor** | **Status** | **DirectorID** |
| 1 | PEE NAK 4 | 125 | Witthawat | active | 1 |
| 2 | Doraemon | 115 | Nobita | active | 2 |
| 3 | Doraemon 2022 | 120 | Doraemon | inactive | 2 |
| 4 | Avatar | 192 | Kate Winslet | inactive | 3 |

|  |  |  |
| --- | --- | --- |
| **Email** | **Password** | **RoleID** |
| admin@cinestar.com | @4 | 1 |
| customer@cinestar.com | @4 | 4 |
| manager@cinestar.com | @4 | 3 |
| staff@cinestar.com | @4 | 2 |

|  |  |  |
| --- | --- | --- |
| **ID** | **DirectorName** | **Nationality** |
| 1 | Phontharis | Thailand |
| 2 | Fujiko Fujio | Japan |
| 3 | James Cameron | USA |

INSERT INTO Accounts (Email, Password, RoleID) VALUES

('admin@cinestar.com', '@4', 1),

('customer@cinestar.com', '@4', 4),

('manager@cinestar.com', '@4', 3),

('staff@cinestar.com', '@4', 2);

INSERT INTO Directors (DirectorName, Nationality) VALUES

('Phontharis', 'Thailand'),

('Fujiko Fujio', 'Japan'),

('James Cameron', 'USA');

INSERT INTO Movies (MovieName, Duration, Actor, Status, DirectorID) VALUES

('PEE NAK 4', 125, 'Witthawat', 'active', 1),

('Doraemon', 115, 'Nobita', 'active', 2),

('Doraemon 2022', 120, 'Doraemon', 'inactive', 2),

('Avatar', 192, 'Kate Winslet', 'inactive', 3);